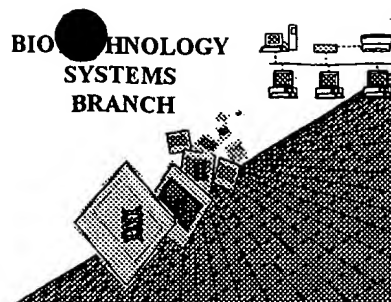


JE

## RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/701,395

Source: PT 09

Date Processed by STIC: 1/23/2001

5000

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin30help@uspto.gov](mailto:patin30help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

PCT09

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001  
 TIME: 11:13:18

Input Set : A:\108172-00022.txt  
 Output Set: N:\CRF3\01232001\I701395.raw

*see  
P. 6*

**Does Not Comply  
 Corrected Diskette Needed**

```

4 <110> APPLICANT: CUNNINGHAM JR., FRANCIS X.
5   SUN, ZAIREN
7 <120> TITLE OF INVENTION: GENES OF CAROTENOID BIOSYNTHESIS AND METABOLISM AND
8   METHODS OF USE THEREOF
10 <130> FILE REFERENCE: 8172-9023
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/701,395
C--> 13 <141> CURRENT FILING DATE: 2000-12-04
15 <150> PRIOR APPLICATION NUMBER: 09/088,724
16 <151> PRIOR FILING DATE: 1998-06-02
18 <150> PRIOR APPLICATION NUMBER: 09/088,725
19 <151> PRIOR FILING DATE: 1998-06-02
21 <160> NUMBER OF SEQ ID NOS: 61
23 <170> SOFTWARE: PatentIn Ver. 2.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 1860
27 <212> TYPE: DNA
28 <213> ORGANISM: Arabidopsis thaliana
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (109)..(1680)
34 <400> SEQUENCE: 1
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37 aatgggtgtaa gctctctcgc tgtattcgaa attatttgga ggaggaaa atg gag tgt      117
38                                     Met Glu Cys
39                                     1
41 gtt ggg gct agg aat ttc gca gca atg gcg gtt tca aca ttt ccg tca      165
42 Val Gly Ala Arg Asn Phe Ala Ala Met Ala Val Ser Thr Phe Pro Ser
43   5          10          15
45 tgg agt tgt cga agg aaa ttt cca gtg gtt aag aga tac agc tat agg      213
46 Trp Ser Cys Arg Arg Lys Phe Pro Val Val Lys Arg Tyr Ser Tyr Arg
47 20          25          30          35
49 aat att cgt ttc ggt ttg tgt agt gtc aga gct agc ggc ggc gga agt      261
50 Asn Ile Arg Phe Gly Leu Cys Ser Val Arg Ala Ser Gly Gly Gly Ser
51   40          45          50
53 tcc ggt agt gag agt tgt gta gcg gtg aga gaa gat ttc gct gac gaa      309
54 Ser Gly Ser Glu Ser Cys Val Ala Val Arg Glu Asp Phe Ala Asp Glu
55   55          60          65
57 gaa gat ttt gtg aaa gct ggt ggt tct gag att cta ttt gtt caa atg      357
58 Glu Asp Phe Val Lys Ala Gly Gly Ser Glu Ile Leu Phe Val Gln Met
59   70          75          80
61 cag cag aac aaa gat atg gat gaa cag tct aag ctt gtt gat aag ttg      405
63 Gln Gln Asn Lys Asp Met Asp Glu Gln Ser Lys Leu Val Asp Lys Leu
64   85          90          95
66 cct cct ata tca att ggt gat ggt gct ttg gat cat gtg gtt att ggt      453
67 Pro Pro Ile Ser Ile Gly Asp Gly Ala Leu Asp His Val Val Ile Gly
68 100          105          110          115
70 tgt ggt cct gct ggt tta gcc ttg gct gca gaa tca gct aag ctt gga      501

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RAW SEQUENCE LISTING      DATE: 01/23/2001  
 PATENT APPLICATION: US/09/701,395      TIME: 11:13:18

Input Set : A:\108172-00022.txt  
 Output Set: N:\CRF3\01232001\I701395.raw

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71 Cys Gly Pro Ala Gly Leu Ala Leu Ala Ala Glu Ser Ala Lys Leu Gly
72                               120                               125                               130
74 tta aaa gtt qga ctc att ggt cca gat ctt cct ttt act aac aat tac      549
75 Leu Lys Val Gly Leu Ile Gly Pro Asp Leu Pro Phe Thr Asn Asn Tyr
76                               135                               140                               145
78 ggt gtt tgg gaa gat gaa ttc aat gat ctt ggg ctg caa aaa tgt att      597
79 Gly Val Trp Glu Asp Glu Phe Asn Asp Leu Gly Leu Gln Lys Cys Ile
80                               150                               155                               160
82 gag cat gtt tgg aga gag act att gtg tat ctg gat gat gac aag cct      645
83 Glu His Val Trp Arg Glu Thr Ile Val Tyr Leu Asp Asp Lys Pro
84                               165                               170                               175
86 att acc att ggc cgt gct tat gga aga gtt agt cga cgt ttg ctc cat      693
87 Ile Thr Ile Gly Arg Ala Tyr Gly Arg Val Ser Arg Arg Leu Leu His
88 180                               185                               190                               195
90 gag gag ctt ttg agg agg tgt gtc gag tca ggt gtc tgg tac ctt agc      741
91 Glu Glu Leu Leu Arg Arg Cys Val Glu Ser Gly Val Ser Tyr Leu Ser
92                               200                               205                               210
94 tcg aaa gtt gac agc ata aca gaa gct tct gat ggc ctt aga ctt gtt      789
95 Ser Lys Val Asp Ser Ile Thr Glu Ala Ser Asp Gly Leu Arg Leu Val
96                               215                               220                               225
98 gct tgt gac gac aat aac gtc att ccc tgc agg ctt gcc act gtt gct      837
99 Ala Cys Asp Asp Asn Asn Val Ile Pro Cys Arg Leu Ala Thr Val Ala
100                               230                               235                               240
102 tct gga gca gct tgg gga aag ctc ttg caa tac gaa gtt ggt gga cct      885
103 Ser Gly Ala Ala Ser Gly Lys Leu Leu Gln Tyr Glu Val Gly Gly Pro
104                               245                               250                               255
106 aga gtc tgt gtg caa act gca tac ggc gtg gag gtt gag gtg gaa aat      933
107 Arg Val Cys Val Gln Thr Ala Tyr Gly Val Glu Val Glu Val Glu Asn
108 260                               265                               270                               275
110 agt cca tat gat cca gat caa atg gtt ttc atg gat tac aga gat tat      981
111 Ser Pro Tyr Asp Pro Asp Gln Met Val Phe Met Asp Tyr Arg Asp Tyr
112                               280                               285                               290
114 act aac gag aaa gtt cgg agc tta gaa gct gag tat cca acg ttt ctg      1029
115 Thr Asn Glu Lys Val Arg Ser Leu Glu Ala Glu Tyr Pro Thr Phe Leu
116                               295                               300                               305
118 tac gcc atg cct atg aca aag tca aga ctc ttc ttc gag gag aca tgt      1077
119 Tyr Ala Met Pro Met Thr Lys Ser Arg Leu Phe Phe Glu Glu Thr Cys
120                               310                               315                               320
122 ttg gcc tca aaa gat gtc atg ccc ttt gat ttg cta aaa acg aag ctc      1125
123 Leu Ala Ser Lys Asp Val Met Pro Phe Asp Leu Leu Lys Thr Lys Leu
125                               325                               330                               335
127 atg tta aga tta gat aca ctc gga att cga att cta aag act tac gaa      1173
128 Met Leu Arg Leu Asp Thr Leu Gly Ile Arg Ile Leu Lys Thr Tyr Glu
129 340                               345                               350                               355
131 gag gag tgg tcc tat atc cca gtt ggt ggt tcc ttg cca aac acc gaa      1221
132 Glu Glu Trp Ser Tyr Ile Pro Val Gly Gly Ser Leu Pro Asn Thr Glu
133                               360                               365                               370
135 caa aag aat ctc gcc ttt ggt gct gcc gct agc atg gta cat ccc gca      1269
136 Gln Lys Asn Leu Ala Phe Gly Ala Ala Ala Ser Met Val His Pro Ala

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RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001  
 TIME: 11:13:18

Input Set : A:\108172-00022.txt  
 Output Set: N:\CRF3\01232001\I701395.raw

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137          375          380          385
139 aca ggc tal tca gtt gtg aga tct ttg tcl gaa gct cca aaa tat gca 1317
140 Thr Gly Tyr Ser Val Val Arg Ser Leu Ser Glu Ala Pro Lys Tyr Ala
141          390          395          400
143 tca gtc atc gca gag ata cta aga gaa gag act acc aaa cag atc aac 1365
144 Ser Val Ile Ala Glu Ile Leu Arg Glu Glu Thr Thr Lys Gln Ile Asn
145          405          410          415
147 agt aat att tca aga caa gct tgg gat act tta tgg cca cca gaa agg 1413
148 Ser Asn Ile Ser Arg Gln Ala Trp Asp Thr Leu Trp Pro Pro Glu Arg
149 420          425          430          435
151 aaa aga cag aga gca ttc ttt ctc ttt ggt ctt gca ctc ata gtt caa 1461
152 Lys Arg Gln Arg Ala Phe Phe Leu Phe Gly Leu Ala Leu Ile Val Gln
153          440          445          450
155 ttc gat acc gaa ggc att aga agc ttc ttc cgt act ttc ttc cgc ctt 1509
156 Phe Asp Thr Glu Gly Ile Arg Ser Phe Phe Arg Thr Phe Phe Arg Leu
157          455          460          465
159 cca aaa tgg atg tgg caa ggg ttt cta gga tca aca tta aca tca gga 1557
160 Pro Lys Trp Met Trp Gln Gly Phe Leu Gly Ser Thr Leu Thr Ser Gly
161          470          475          480
163 gat ctc gtt ctc ttt gct tta tac atg ttc gtc att tca cca aac aat 1605
164 Asp Leu Val Leu Phe Ala Leu Tyr Met Phe Val Ile Ser Pro Asn Asn
165          485          490          495
167 ttg aga aaa ggt ctc atc aat cat ctc atc tct gat cca acc gga gca 1653
168 Leu Arg Lys Gly Leu Ile Asn His Leu Ile Ser Asp Pro Thr Gly Ala
169 500          505          510          515
171 acc atg ata aaa acc tat ctc aaa gla tgatttactt atcaactctt 1700
172 Thr Met Ile Lys Thr Tyr Leu Lys Val
173          520
175 aggtttgtgt atatatatgt tgatttatct gaataatcga tcaaagaatg gtatgtgggt 1760
177 tactaggaag ttggaacaa acatgtatag aatctaagga gtgatcgaaa tggagatgga 1820
179 aacgaaaaga aaaaaatcag tctttgtttt gtggttagtg 1860
182 <210> SEQ ID NO: 2
183 <211> LENGTH: 524
184 <212> TYPE: PRT
185 <213> ORGANISM: Arabidopsis thaliana
187 <400> SEQUENCE: 2
188 Met Glu Cys Val Gly Ala Arg Asn Phe Ala Ala Met Ala Val Ser Thr
189 1 5 10 15
191 Phe Pro Ser Trp Ser Cys Arg Arg Lys Phe Pro Val Val Lys Arg Tyr
192 20 25 30
194 Ser Tyr Arg Asn Ile Arg Phe Gly Leu Cys Ser Val Arg Ala Ser Gly
195 35 40 45
197 Gly Gly Ser Ser Gly Ser Glu Ser Cys Val Ala Val Arg Glu Asp Phe
198 50 55 60
200 Ala Asp Glu Glu Asp Phe Val Lys Ala Gly Gly Ser Glu Ile Leu Phe
201 65 70 75 80
203 Val Gln Met Gln Gln Asn Lys Asp Met Asp Glu Gln Ser Lys Leu Val
204 85 90 95
206 Asp Lys Leu Pro Pro Ile Ser Ile Gly Asp Gly Ala Leu Asp His Val

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001  
 TIME: 11:13:18

Input Set : A:\108172-00022.txt

Output Set: N:\CRF3\01232001\I701395.raw

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207          100          105          110
209 Val Ile Gly Cys Gly Pro Ala Gly Leu Ala Leu Ala Ala Glu Ser Ala
210          115          120          125
212 Lys Leu Gly Leu Lys Val Gly Leu Ile Gly Pro Asp Leu Pro Phe Thr
213          130          135          140
215 Asn Asn Tyr Gly Val Trp Glu Asp Glu Phe Asn Asp Leu Gly Leu Gln
216 145          150          155          160
218 Lys Cys Ile Glu His Val Trp Arg Glu Thr Ile Val Tyr Leu Asp Asp
219          165          170          175
221 Asp Lys Pro Ile Thr Ile Gly Arg Ala Tyr Gly Arg Val Ser Arg Arg
222          180          185          190
224 Leu Leu His Glu Glu Leu Leu Arg Arg Cys Val Glu Ser Gly Val Ser
225          195          200          205
227 Tyr Leu Ser Ser Lys Val Asp Ser Ile Thr Glu Ala Ser Asp Gly Leu
228          210          215          220
230 Arg Leu Val Ala Cys Asp Asp Asn Asn Val Ile Pro Cys Arg Leu Ala
231 225          230          235          240
233 Thr Val Ala Ser Gly Ala Ala Ser Gly Lys Leu Leu Gln Tyr Gln Val
234          245          250          255
236 Gly Gly Pro Arg Val Cys Val Gln Thr Ala Tyr Gly Val Glu Val Glu
237          260          265          270
239 Val Glu Asn Ser Pro Tyr Asp Pro Asp Gln Met Val Phe Met Asp Tyr
240          275          280          285
242 Arg Asp Tyr Thr Asn Glu Lys Val Arg Ser Leu Glu Ala Glu Tyr Pro
243          290          295          300
245 Thr Phe Leu Tyr Ala Met Pro Met Thr Lys Ser Arg Leu Phe Phe Glu
246 305          310          315          320
249 Glu Thr Cys Leu Ala Ser Lys Asp Val Met Pro Phe Asp Leu Leu Lys
250          325          330          335
252 Thr Lys Leu Met Leu Arg Leu Asp Thr Leu Gly Ile Arg Ile Leu Lys
253          340          345          350
255 Thr Tyr Glu Glu Glu Trp Ser Tyr Ile Pro Val Gly Gly Ser Leu Pro
256          355          360          365
258 Asn Thr Glu Gln Lys Asn Leu Ala Phe Gly Ala Ala Ala Ser Met Val
259          370          375          380
261 His Pro Ala Thr Gly Tyr Ser Val Val Arg Ser Leu Ser Glu Ala Pro
262 385          390          395          400
264 Lys Tyr Ala Ser Val Ile Ala Glu Ile Leu Arg Glu Glu Thr Thr Lys
265          405          410          415
267 Gln Ile Asn Ser Asn Ile Ser Arg Gln Ala Trp Asp Thr Leu Trp Pro
268          420          425          430
270 Pro Glu Arg Lys Arg Gln Arg Ala Phe Phe Leu Phe Gly Leu Ala Leu
271          435          440          445
273 Ile Val Gln Phe Asp Thr Glu Gly Ile Arg Ser Phe Phe Arg Thr Phe
274          450          455          460
276 Phe Arg Leu Pro Lys Trp Met Trp Gln Gly Phe Leu Gly Ser Thr Leu
277 465          470          475          480
279 Thr Ser Gly Asp Leu Val Leu Phe Ala Leu Tyr Met Phe Val Ile Ser
280          485          490          495

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001  
 TIME: 11:13:18

Input Set : A:\108172-00022.txt  
 Output Set: N:\CRF3\01232001\I701395.raw

282 Pro Asn Asn Leu Arg Lys Gly Leu Ile Asn His Leu Ile Ser Asp Pro  
 283 500 505 510  
 285 Thr Gly Ala Thr Met Ile Lys Thr Tyr Leu Lys Val  
 286 515 520

288 <210> SEQ ID NO: 3  
 289 <211> LENGTH: 956  
 290 <212> TYPE: DNA  
 291 <213> ORGANISM: Arabidopsis thaliana  
 293 <400> SEQUENCE: 3

C--> 294 gctctttctc ctctctctct accgatttcc gactccgcct cccgaaatcc ttatccggat 60  
 296 tctctccgtc tcttcgattt aaacgctttt ctgtctgtta cgtcgtcgaa gaacggagac 120  
 298 agaattctcc gattgagAAC gatgagagac cggagagcac gagctccaca aacgtataa 180  
 300 acgctgagta tctgctgttg cgtttggcgg agaaattgga gaggaagaaa tcggagaggt 240  
 302 ccacttatct aatcgtctct atgttgtcga gctttggtat cacttctatg cctgttatgg 300  
 304 ctgtttacta cagattctct tggcaaatgg aqggaggtga gatctcaatg ttggaaatgt 360  
 306 ttgttacatt tctctctctc gttggtgctg ctgtttgtat ggaattctgg gcaagatggg 420  
 308 ctcatagaac tctgtggcac gcttctctat ggaatatgca tgaatcacat cacaaccaca 480  
 311 gagaaggacc gtttgagcta aacgatgttt ttgctatagt gaacgctggg ccacgcatlg 540  
 313 gtctctctc ttatggatcc ttcaatanaa gactcgttcc tggctctctg tttggcgcgg 600  
 315 ggttaagcat aacggtgttt ggaatcgcct acatgtttgt ccacgatggt ctctgcaca 660  
 317 agcgtttccc tgtagggtcc atcgccgacg tcccttacct ccgaaaggte gccgcccctc 720  
 319 accagctaca tcacacagac aagttcaatg gtglaccata tggactgttt cttggaccca 780  
 321 aggaattgga agaagttgga ggaatggaag agttagataa ggagattagt cggagaatca 840  
 323 aatcatacaa aaaggcctcg ggtccgggt cgaattcgag ttcttgactt taacaagtt 900  
 325 ttaaatccca aattctttt ttgtctctg tcattatgat catcttaaga cggctct 956

327 <210> SEQ ID NO: 4  
 328 <211> LENGTH: 294  
 329 <212> TYPE: PRT  
 330 <213> ORGANISM: Arabidopsis thaliana  
 332 <400> SEQUENCE: 4

333 Ser Phe Ser Ser Ser Thr Asp Phe Arg Leu Arg Leu Pro Lys Ser  
 334 1 5 10 15  
 336 Leu Ser Gly Phe Ser Pro Ser Leu Arg Phe Lys Arg Phe Ser Val Cys  
 337 20 25 30  
 339 Tyr Val Val Glu Glu Arg Arg Gln Asn Ser Pro Ile Glu Asn Asp Glu  
 340 35 40 45  
 342 Arg Pro Glu Ser Thr Ser Ser Thr Asn Ala Ile Asp Ala Glu Tyr Leu  
 343 50 55 60  
 345 Ala Leu Arg Leu Ala Glu Lys Leu Glu Arg Lys Lys Ser Glu Arg Ser  
 346 65 70 75 80  
 348 Thr Tyr Leu Ile Ala Ala Met Leu Ser Ser Phe Gly Ile Thr Ser Met  
 349 85 90 95  
 351 Ala Val Met Ala Val Tyr Tyr Arg Phe Ser Trp Gln Met Glu Gly Gly  
 352 100 105 110  
 354 Glu Ile Ser Met Leu Glu Met Phe Gly Thr Phe Ala Leu Ser Val Gly  
 355 115 120 125  
 357 Ala Ala Val Gly Met Glu Phe Trp Ala Arg Trp Ala His Arg Ala Leu  
 358 130 135 140  
 360 Trp His Ala Ser Leu Trp Met Asn His Glu Ser His His Lys Pro Arg

09/701,395

6

<210> 13  
 <211> 960  
 <212> DNA  
 <213> Tagetes erecta

Use lower-case letters for bases,  
 when using new sequence rules  
 format. Please correct globally.

<400> 13  
 CCAAAAACAA CTCAAATCTC CTCCGTCGCT CTTACTCCGC CATGGGTGAC GACTCCGGCA 60  
 TGGATGCTGT TCAGCGACGT CTCATGTTTG ACGATGAATG CATTTTGGTG GATGAGTGTG 120  
 ACAATGTGGT GGGACATGAT ACCAAATACA ATTGTCACTT GATGGAGAAG ATTGAAACAG 180  
 GTAAAATGCT GCACAGAGCA TTCAGCGTTT TTCTATTCAA TTCAAATAC GAGTTACTTC 240  
 TTCAGCAACG GTCTGCAACC AAGGTGACAT TTCCTTTAGT ATGGACCAAC ACCTGTTGCA 300  
 GCCATCCACT CTACAGAGAA TCCGAGCTTG TTCCCGAAAC GCCTGAGAGA ATGCTGCACA 360  
 GAGGANNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 420  
 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 480  
 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 540  
 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 600  
 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 660  
 NNNNNNNNNN NNNNNNNNNN TCATGTGCAA AAGGGTACAC TCACTGAATG CAATTTGATA 720  
 TGAAAACCAT ACACAAGCTG ATATAGAAAC ACACCCTCAA CCGAAAAGCA AGCCTAATAA 780  
 TTCGGGTTGG GTCGGGTCTA CCATCAATTG TTTTTTCTT TTAACAACCTT TTAATCTCTA 840  
 TTTGAGCATG TTGATTCTTG TCTTTTGTGT GTAAGATTTT GGGTTTCGTT TCAGTTGTAA 900  
 TAATGAACCA TTGATGGTTT GCAATTTCAA GTTCCTATCG ACATGTAGTG ATCTAAAAA 960

fyi

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

also see Item 10 on Error Summary Sheet

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001

TIME: 11:13:19

Input Set : A:\108172-00022.txt

Output Set: N:\CRF3\01232001\I701395.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number  
 L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
 L:35 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=1  
 L:294 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=3  
 L:554 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=9  
 L:594 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=10  
 L:636 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=11  
 L:684 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=12  
 L:729 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=13  
 L:741 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
 L:741 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13  
 L:741 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13  
 L:741 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13  
 L:741 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:13  
 L:743 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
 L:743 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13  
 L:743 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13  
 L:743 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13  
 M:340 Repeated in SeqNo=13  
 L:745 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
 L:745 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13  
 L:745 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13  
 L:745 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13  
 L:747 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
 L:747 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13  
 L:747 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13  
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 L:749 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
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 L:749 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13  
 L:751 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
 L:751 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13  
 L:751 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13  
 L:751 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13  
 L:1341 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=22  
 L:1521 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=24  
 L:1634 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:25  
 L:1634 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:25



VERIFICATION SUMMARY

PATENT APPLICATION: US/09/701,395

DATE: 01/23/2001

TIME: 11:13:19

Input Set : A:\108172-00022.txt

Output Set: N:\CRF3\01232001\I701395.raw

L:1634 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:25  
 L:1634 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:25  
 L:1634 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:25  
 L:1743 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:26  
 L:1743 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:26  
 L:1743 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:26  
 L:1743 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:26  
 L:1743 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:26  
 L:1840 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=28  
 L:1881 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=29  
 L:1931 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=30  
 L:1975 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=31  
 L:2015 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=32  
 L:2055 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=33  
 L:2125 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=34  
 L:2163 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=35  
 L:2782 M:112 C: (48) String data converted to lower case,  
 M:112 Repeated in SeqNo=46  
 L:3019 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:48  
 L:3019 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:48  
 L:3019 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:48  
 L:3019 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:48  
 L:3019 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:48